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AMENDMENTS TO THE CLAIMS

1. (Original) A light modulator, comprising:
an array comprising rows and columns of interferometric display elements, each element being divided into sub-rows of one or more sub-elements;
array connection lines to transmit operating signals to the display elements, wherein one connection line corresponds to one row of display elements in the array;
sub-array connection lines electrically connected to each array connection line, and
switches to transmit the operating signals from each array connection line to the sub-rows to effect image data modulation.
2. (Currently Amended) The light modulator of claim 1, multiple wherein said one or more sub-elements further comprising comprise a sub-element in each row for red, green and blue.
3. (Currently Amended) The light modulator of claim 1, wherein said array column connection lines further comprising comprise three column connection lines, one each for red, green and blue sub-elements in each element.
4. (Currently Amended) The light modulator of claim 1, wherein the switches further comprise comprising microelectromechanical switches.
5. (Currently Amended) The light modulator of claim 1, wherein the switches further comprise comprising switches of a similar configuration as the interferometric display elements.
6. (Currently Amended) The light modulator of claim 1, wherein the switches further comprise comprising the sub-elements such that when a selected sub-element is deflected, the selected sub element causes the operating signal from the array connection line to transfer from the selected sub-element to an adjacent sub-element.
7. (Currently Amended) The light modulator of claim 1, wherein the switches further comprise comprising semiconductor transistor switches
8. (Original) A method of manufacturing an interferometric light modulator, the method comprising:
providing an array of interferometric display elements arranged in rows and columns, each display element comprising:

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a predetermined number of sub-rows of sub-elements, wherein the predetermined number of sub-rows depends upon a desired bit-depth for a display; and

a predetermined number of sub-columns within each sub-row, wherein the predetermined number of sub-columns corresponds to a desired number of colors for the display;

arranging array connection lines for each row, such that each connection line corresponds to one row of the array; and

providing electrical connection between the array connection line for each row to one of the sub-rows of the corresponding row of the array.

9. (Currently Amended) The method of claim 8, wherein said arranging array connection lines for each row further comprises comprising arranging array connection lines between the array and a driver device.

10. (Currently Amended) The method of claim 8, wherein said providing electrical connection between the array connection line further comprises comprising providing connection to a set of microelectromechanical switches.

11. (Currently Amended) The method of claim 8, wherein said providing electrical connection between the array connection line further comprises comprising providing connection to a set of semiconductor switches.

12. (Currently Amended) The method of claim 10, wherein the microelectromechanical switches further comprise comprising switches of a similar configuration as the interferometric display elements.

13. (Currently Amended) The method of claim 8, wherein said providing electrical connection further comprise comprising deflecting a sub-element of a sub-row, thereby forming a connection between the sub-element and an adjacent sub-element.

14. (Previously Presented) A light modulator, comprising:

an array of interferometric display elements arranged in rows and columns, each element comprising a predetermined number of sub-elements, wherein the number of sub-elements is determined by a desired bit depth and each element is approximately the same size; and

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an array connection line corresponding to each row of display elements, wherein each array connection line is electrically connected to a sub-element in each display element;

wherein at least one sub-element is configured to selectively form an electrical connection connecting said array connection line to at least one other sub-element.

15. (Currently Amended) A light modulator, comprising:

an array of interferometric display elements arranged in rows and columns, each element comprising a predetermined number of sub-elements, wherein the number of sub-elements is determined by a desired bit depth and each element is approximately the same size;

electrical connections between the sub-elements such that the electrical connections form a sub-element cascade; and

an array connection line corresponding to each row of display elements, wherein each array connection line is electrically connected to a sub-element in each display element;

wherein each element comprises a predetermined number of sub-element sub-elements cascades, and the predetermined number of cascades corresponds to the number of colors in the element.

16. (Previously presented) A light modulator, comprising:

an array of interferometric display elements arranged in rows and columns, each element comprising a predetermined number of sub-elements, wherein the number of sub-elements is determined by a desired bit depth and each element is approximately the same size;

electrical connections between the sub-elements such that the electrical connections form a sub-element cascade;

an array connection line corresponding to each row of display elements, wherein each array connection line is electrically connected to a sub-element in each display element; and

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addressing circuitry to provide an addressing pulse to each sub-element cascade, wherein a number of sub-elements in the cascade that become active depends upon a length of the addressing pulse.

17. (Previously Presented) A method of manufacturing a light modulator, comprising: providing an array of interferometric display elements arranged in rows and columns, each element comprising at least one sub-element cascade of a predetermined number of sub-elements, such that at least one sub-element is configured to selectively form an electrical connection connecting said array connection line to at least one other sub-element; and

electrically connecting a first element in each sub-element cascade in a row to a corresponding connection line for that row.

18. (Currently Amended) A method of manufacturing a light modulator, comprising: providing an array of interferometric display elements arranged in rows and columns, each element comprising at least one sub-element cascade for each of a desired color comprising a predetermined number of sub-elements; and

electrically connecting a first element in each sub-element cascade in a row to a corresponding connection line for that row; and

~~providing an array of interferometric elements having at least one sub element cascade further comprising providing a sub-element cascade for each desired color.~~

19. (Previously presented) The method of claim 17, further comprising electrically connecting the connection lines for each row to a driver device.

20. (Previously Presented) A light modulator, comprising:

an array of interferometric elements, each element comprising a pre-determined number of sub-elements, each sub-element comprising a single movable layer having a surface area, wherein the surface area corresponds to a different binary weight of display information, and wherein the number of sub-elements depends upon a desired bit depth.

21. (Previously Presented) The light modulator of claim 20, wherein at least one interferometric element comprises four sub-elements, a first sub-element of a size approximately one half the size of said at least one element, a second sub-element of a size approximately one fourth the size of said at least one element and third sub element of a size approximately one

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eighth the size of said at least one element and a fourth sub-element of a size approximately one sixteenth the size of said at least one element.

22. (Previously presented) The light modulator of claim 20, further comprising a connection line for each of the sub-elements.

23. (Previously presented) A light modulator, comprising:

an array of interferometric elements, each element comprising a pre-determined number of sub-elements, wherein one or more of the sub-elements are of a different size corresponding to a different binary weight of display information, wherein the number of sub-elements depends upon a desired bit depth; and

one connection line for each display element, and a set of switches electrically connected between the display element and the sub-elements, wherein the light modulator is configured such that sub-elements needed to create a weighting of a pixel are activated in accordance with display information.

24. (Previously Presented) A method of manufacturing a light modulator, the method comprising:

providing an array of interferometric display elements;

forming sub-elements within each display element of a size approximately equal to one half the display element; and

forming additional sub-elements as desired, each additional sub-element having a movable layer having a surface area approximately equal to half the surface area of a next largest movable layer of another sub-element.

25. (Previously presented) The method of claim 24, further comprising forming a connection line for each sub-element.

26. (Previously presented) The method of claim 24, further comprising forming a connection line for each display element and providing multiplexing switches in electrical connection between the connection line and the sub-elements.

27-31. (Canceled)

32. (Previously Presented) The light modulator of Claim 20, wherein the movable layer comprises a mirror.

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33. (Previously Presented) The method of Claim 24, wherein the movable layer comprises a mirror.